ENVIRONMENTAL
Fact Sheet

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

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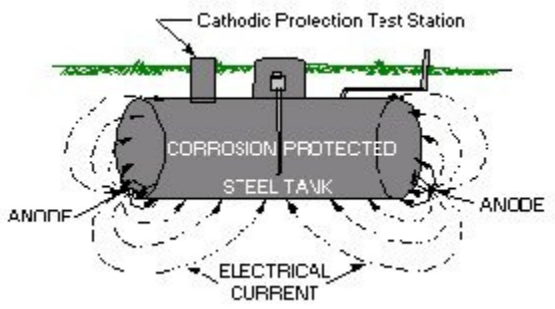
Corrosion Protection for Steel Underground Storage Tank Systems (Env-Wm-1401):

Cathodic Protection is Required for Steel Underground Storage Tank (UST) Systems	
Anodes connected to tank discharge electrical current **WORKING GALVANIC ANODES**	

Why Do Steel UST Systems Need Cathodic Protection?

- To minimize the rusting of steel tanks and connected piping which can cause a release of a regulated substance.
- To eliminate the cost associated with environmental clean-ups caused by a release from the UST system.
- To extend the operational life of the steel UST and/or piping.

How Does Cathodic Protection Work?

Steel UST systems can be protected from rusting by applying cathodic protection. Without cathodic protection, current flows from the surface of the steel tank into the ground and the tank rusts. With cathodic protection, a current flows to the steel tank and the tank is protected from rusting. The two most common types of cathodic protection which can be added to existing UST systems are sacrificial anodes and impressed current. Sacrificial anode systems are zinc or magnesium anodes which are buried in the ground close to the tank and connected to the tank by a wire. Impressed current systems include buried metal anodes and a power source called a rectifier, connected to the tank. As discussed briefly below, these systems must be periodically tested to ensure that the cathodic protection system is functioning properly.

What Are the Operation and Maintenance Requirements for Cathodic Protections Systems?

- Corrosion protection systems must be operated and maintained continuously.
- All USTs with corrosion protection systems must be inspected by a qualified cathodic protection tester in accordance with the following schedule:
    - Cathodic protection systems must be tested within six months of installation and at least every three years thereafter.
    - Impressed current cathodic protection systems must be inspected monthly to ensure the equipment is running.
    - Records must be kept to document the testing results.
    - Failed cathodic protection systems must be repaired or the system permanently closed.

Disclaimer: Information contained in this Fact Sheet is current as of January 1, 2005. Statutory or regulatory changes that may occur after this date may cause all or part of the information to be invalid. If there are any questions concerning the current status of the information, please contact us at (603) 271-3644.